1. (Currently Amended) An apparatus for sensing the absolute value of the rotational position of a shaft ~~(14) of a motor (10)~~, said apparatus comprising:

a) a first single-turn rotary encoder ~~(30)~~ arranged at one end ~~(20)~~ of the shaft and ~~is~~ configured to sense the shaft's rotational position within a single revolution thereof, said first single-turn rotary encoder being circumscribed by an outer periphery;

b) a second ~~multi-turn~~ rotary encoder unit for sensing the number a revolutions of said shaft ~~(14)~~, said second ~~multi-turn~~ rotary encoder unit comprising:

i) a reduction gear linkage ~~(18)~~ drivable by the shaft ~~(14)~~ and being arranged annularly around a portion of the shaft, said reduction gear linkage having an output element ~~(38,71)~~ ;

ii) a rotary element connected to said output element ~~(38,71)~~, said rotary element being ~~that is~~ located beyond said one end of the shaft ~~(14)~~ but along a common axis therewith;

iii) a second single-turn rotary encoder ~~(48, 48') which is~~ configured to sense the rotational position of said rotary element ~~(42, 94)~~ within a single revolution thereof; and

iv) ~~said reduction gear linkage (18) being arranged annularly about a portion of the shaft (14); and said outut element (38; 71) of said reduction gear linkage (18) being connected to said rotary element (42; 94) around the first single turn rotary encoder (30) via~~ a connecting member (40) for drivingly connecting said output element of the reduction gear linkage to said rotary element, said connecting member (40) extending around the outer periphery of the first single-turn rotary encoder.

2. (Original) The apparatus according to claim 1, wherein driving motion applied by the shaft (14) to the reduction gear linkage (18) translates into a motion coaxial with motion of the shaft.

3. (Original) The apparatus according to claim 2, wherein the connecting member comprises an essentially U-shaped yoke (40).

4. (Original) The apparatus according to claim 1, wherein the first single-turn rotary encoder (30) comprises a first sensor (26) and a permanent magnet (22) coacting therewith, said magnet being arranged on an end face of the shaft (14).

5. (Original) The apparatus according to claim 1, wherein the first sensor comprises a giant magneto-resistive (GMR) sensor (26).

6. (Original) The apparatus according to claim 4, wherein the second single-turn rotary encoder (48) comprises a second sensor (46) and a permanent magnet (44) coacting therewith, the magnet being arranged on the rotary element (42).

7. (Original) The apparatus according to claim 6, wherein the second sensor comprises a giant magneto-resistive (GMR) sensor (26).

8. (Original) The apparatus according to claim 4, wherein a magnetic shield (96; 106) is provided between the first (30) rotary encoder and the second rotary encoder (48), in order to at least partially magnetically uncouple those rotary encoders from one another.

9. (Original) The apparatus according to claim 8, wherein the magnetic shield (96; 106) is arranged adjacent the rotary element (42; 94).

10. (Original) The apparatus according to claim 1, wherein the first (30) and second single-turn rotary encoder (48) are arranged adjacent a shaft end (16; 20) of the motor shaft (14) opposite to an input drive end send of that shaft (14).

11. (Original) The apparatus according to claim 4, wherein the sensors (26, 46') of the first end (30) and the second single-turn rotary encoder (48') are arranged on a common sensor carrier (106).

12. (Original) The apparatus according to claim 11, wherein the common sensor carrier (106) is formed, at least locally, from a magnetically shielded material, in order to magnetically uncouple the sensors (26, 46') of the two rotary encoders (30, 48') from one another.

13. (Original) The apparatus according to claim 1, further comprising

an evaluation unit (34) which receives the output signals of the two rotary encoders (30, 48; 48') and generates a common output signal (35).